

b-catenin

Trying 3106016892...Open

Welcome to STN International! Enter x:x  
LOGINID:ssspta1632qjl  
PASSWORD:  
TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America  
NEWS 2 Dec 17 The CA Lexicon available in the CAPLUS and CA files  
NEWS 3 Feb 06 Engineering Information Encompass files have new names  
NEWS 4 Feb 16 TOXLINE no longer being updated  
NEWS 5 Apr 23 Search Derwent WPINDEX by chemical structure  
NEWS 6 Apr 23 PRE-1967 REFERENCES NOW SEARCHABLE IN CAPLUS AND CA  
NEWS 7 May 07 DGENE Reload  
NEWS 8 Jun 20 Published patent applications (A1) are now in USPATFULL  
NEWS 9 JUL 13 New SDI alert frequency now available in Derwent's  
DWPI and DPCI

NEWS EXPRESS July 11 CURRENT WINDOWS VERSION IS V6.0b,  
CURRENT MACINTOSH VERSION IS V5.0C (ENG) AND V5.0JB (JP),  
AND CURRENT DISCOVER FILE IS DATED 06 APRIL 2001  
NEWS HOURS STN Operating Hours Plus Help Desk Availability  
NEWS INTER General Internet Information  
NEWS LOGIN Welcome Banner and News Items  
NEWS PHONE Direct Dial and Telecommunication Network Access to STN  
NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that  
specific topic.

All use of STN is subject to the provisions of the STN Customer  
agreement. Please note that this agreement limits use to scientific  
research. Use for software development or design or implementation  
of commercial gateways or other similar uses is prohibited and may  
result in loss of user privileges and other penalties.

\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 10:30:35 ON 09 AUG 2001

=> file medline, biosis, caplus, embase  
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
0.15	0.15

FULL ESTIMATED COST

FILE 'MEDLINE' ENTERED AT 10:30:53 ON 09 AUG 2001

FILE 'BIOSIS' ENTERED AT 10:30:53 ON 09 AUG 2001  
COPYRIGHT (C) 2001 BIOSIS(R)

FILE 'CAPLUS' ENTERED AT 10:30:53 ON 09 AUG 2001  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

b-catenin

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2001 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'EMBASE' ENTERED AT 10:30:53 ON 09 AUG 2001  
COPYRIGHT (C) 2001 Elsevier Science B.V. All rights reserved.

=> s channel-forming peptides  
L1 152 CHANNEL-FORMING PEPTIDES

=> s antimicrobial peptides  
L2 2741 ANTIMICROBIAL PEPTIDES

=> s peptide antibiotics  
L3 1662 PEPTIDE ANTIBIOTICS

=> s (l1 or l2 or l3) and vector  
L4 40 (L1 OR L2 OR L3) AND VECTOR

=> duplicate remove l4  
DUPLICATE PREFERENCE IS 'MEDLINE, BIOSIS, CAPLUS, EMBASE'  
KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n  
PROCESSING COMPLETED FOR L4  
L5 28 DUPLICATE REMOVE L4 (12 DUPLICATES REMOVED)

=> s l5 and 1980-1995/py  
2 FILES SEARCHED...  
L6 5 L5 AND 1980-1995/PY

=> d l6 all,1-5

L6 ANSWER 1 OF 5 MEDLINE  
AN 92215557 MEDLINE  
DN 92215557 PubMed ID: 1368016  
TI Extracellular production system of heterologous peptide driven by a  
secretory protease inhibitor of Streptomyces.  
AU Taguchi S; Maeno M; Momose H  
CS Department of Biological Science and Technology, Science University of  
Tokyo, Japan.  
SO APPLIED MICROBIOLOGY AND BIOTECHNOLOGY, (1992 Mar) 36 (6)  
749-53.  
Journal code: AMC; 8406612. ISSN: 0175-7598.  
CY GERMANY: Germany, Federal Republic of  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS B  
EM 199205  
ED Entered STN: 19950809  
Last Updated on STN: 19950809  
Entered Medline: 19920513  
AB The value of a heterologous peptide extracellular production system in  
Streptomyces using a secretory protease inhibitor, was examined. DNA was  
synthesized encoding apidaecin 1b (AP1), an interesting antibacterial  
peptide discovered in lymph fluid of the honeybee, and was joined to the  
Streptomyces subtilisin inhibitor (SSI) gene via a 12-bp nucleotide  
sequence corresponding to the amino acid sequence specific for cleavage  
by  
blood coagulation factor Xa. The fusion protein (SSI-AP1) could be  
expressed and excreted efficiently into the medium by culturing S.

## b-catenin

lividans 66 harbouring a plasmid **vector** constructed for SSI secretion, into which the synthetic DNA was introduced. Sodium dodecyl sulphate-polyacrylamide gel electrophoresis and amino acid analysis of the purified SSI-AP1 provided reasonable results of molecular size and composition value. Interestingly, SSI-AP1 protein showed bifunctional activity: inhibitory activity of SSI and antibacterial activity of AP1. The inhibitory activity against Escherichia coli could be also detected after the fusion protein was cleaved by factor Xa. The extracellular production system presented here should provide a useful tool for production, analysis of mode of action, and also for genetic improvement of **antimicrobial peptides** such as apidaecin.

CT Check Tags: Animal; Support, Non-U.S. Gov't  
Amino Acid Sequence  
Anti-Infective Agents: ME, metabolism  
Bacterial Proteins: GE, genetics  
Bacterial Proteins: ME, metabolism  
Base Sequence  
Bees: GE, genetics  
DNA, Bacterial: GE, genetics  
Molecular Sequence Data  
\*Peptides: BI, biosynthesis  
Peptides: GE, genetics  
\*Protease Inhibitors: ME, metabolism  
Recombinant Fusion Proteins: BI, biosynthesis  
Recombinant Fusion Proteins: GE, genetics  
Streptomyces: GE, genetics  
\*Streptomyces: ME, metabolism

RN 123997-21-7 (apidaecin)

CN 0 (Anti-Infective Agents); 0 (Bacterial Proteins); 0 (DNA, Bacterial); 0 (Peptides); 0 (Protease Inhibitors); 0 (Recombinant Fusion Proteins); 0 (Streptomyces subtilisin inhibitor)

L6 ANSWER 2 OF 5 MEDLINE

AN 90094252 MEDLINE

DN 90094252 PubMed ID: 2152912

TI mprA, an Escherichia coli gene that reduces growth-phase-dependent synthesis of microcins B17 and C7 and blocks osmoinduction of proU when cloned on a high-copy-number plasmid.

AU del Castillo I; Gomez J M; Moreno F

CS Unidad de Genetica Molecular, Hospital Ramon y Cajal, Madrid, Spain.

SO JOURNAL OF BACTERIOLOGY, (1990 Jan) 172 (1) 437-45.  
Journal code: HH3; 2985120R. ISSN: 0021-9193.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199002

ED Entered STN: 19900328  
Last Updated on STN: 19900328  
Entered Medline: 19900208

AB Microcins B17 and C7 are plasmid-determined, **peptide antibiotics** produced by Escherichia coli when cells enter the stationary phase of growth. Microcinogenic strains are immune to the action of the microcin they synthesize. A well-characterized deficient-immunity phenotype is exhibited by microcin B17-producing cells in the absence of the immunity gene mcbG (M.C. Garrido, M. Herrero, R. Kolter, and F. Moreno, EMBO J. 7:1853-1862, 1988). A 14.6-kilobase-pair

## b-catenin

EcoRI chromosomal fragment was isolated by its ability to suppress this phenotype when cloned into a multicopy **vector**. This fragment was mapped to 57.5 min on the E. coli genetic map. The position of the gene responsible for suppression, designated mprA, was determined by insertional mutagenesis and deletion analysis. mprA was shown to be transcribed clockwise on the E. coli chromosome, and its product was identified as a 19-kilodalton polypeptide. Suppression was shown to be achieved by decreasing microcin B17 production. Increased mprA gene dosage also caused a decrease in microcin C7 production and blocked the osmoinduction of the proU locus in high-osmolarity media. Our results suggest that the mprA gene product could play a regulatory role on expression of several E. coli genes, this control being exerted at the transcriptional level.

CT Check Tags: Support, Non-U.S. Gov't  
\*Antibiotics: BI, biosynthesis  
Bacterial Proteins: AN, analysis  
\*Bacteriocins: BI, biosynthesis  
\*Cloning, Molecular  
\*Escherichia coli: GE, genetics  
Gene Expression Regulation, Bacterial  
\*Genes, Bacterial  
\*Genes, Regulator  
Immune Tolerance  
\*Operon  
Osmolar Concentration  
\*Plasmids  
Suppression, Genetic  
Transcription, Genetic

RN 1403-96-9 (microcin)  
CN 0 (Antibiotics); 0 (Bacterial Proteins); 0 (Bacteriocins); 0 (Plasmids)

L6 ANSWER 3 OF 5 BIOSIS COPYRIGHT 2001 BIOSIS  
AN 1995:509690 BIOSIS  
DN PREV199598514740  
TI Influences on the antimicrobial activity of surface-adsorbed nisin.  
AU Bower, C. K.; McGuire, J.; Daeschel, M. A. (1)  
CS (1) Dep. Food Science Technol., Oregon State Univ., Wiegand Hall 100, Corvallis, OR 97331-6602 USA  
SO Journal of Industrial Microbiology, (1995) Vol. 15, No. 3, pp. 227-233. ISSN: 0169-4146.  
DT Article  
LA English  
AB The efficacy of the antimicrobial peptide nisin was examined after adsorption to silica surfaces. Three protocols were used to evaluate nisin's activity against adhered cells of *Listeria monocytogenes*:  
bioassay  
using *Pediococcus pentosaceus* FBB 61-2 as the sensitive indicator strain;  
visualization and enumeration of cells by microscopic image analysis; and viability of adhered cells as determined by Iodonitrotetrazolium violet uptake and crystallization. The activity of adsorbed nisin was highly dependent upon conditions of adsorption. The highest antimicrobial activity of adsorbed nisin occurred with high concentrations of nisin (1.0 mg ml<sup>-1</sup>) and brief contact times (1 h) on surfaces of low hydrophobicity. Sequential adsorption of a second protein (beta-lactoglobulin or bovine serum albumin) onto surfaces consistently resulted in decreased nisin

b-catenin

activity. These data provide direction for the development of applications to limit microbial attachment on food contact surfaces through the use of adsorbed **antimicrobial peptides**.

CC Microscopy Techniques - General and Special Techniques \*01052  
Comparative Biochemistry, General \*10010  
Biochemical Methods - General \*10050  
Biochemical Methods - Proteins, Peptides and Amino Acids \*10054  
Biochemical Studies - General \*10060  
Biochemical Studies - Proteins, Peptides and Amino Acids \*10064  
Biochemical Studies - Minerals \*10069  
Biophysics - General Biophysical Studies \*10502  
Biophysics - General Biophysical Techniques \*10504  
Biophysics - Molecular Properties and Macromolecules \*10506  
Food Technology - General; Methods \*13502  
Food Technology - Preparation, Processing and Storage \*13532  
Toxicology - Foods, Food Residues, Additives and Preservatives \*22502  
Morphology and Cytology of Bacteria \*30500  
Physiology and Biochemistry of Bacteria \*31000  
Microbiological Apparatus, Methods and Media \*32000  
Public Health - Public Health Laboratory Methods \*37006  
Public Health: Disease Vectors - Inanimate \*37060  
Public Health: Microbiology \*37400  
Chemotherapy - Antibacterial Agents \*38504  
Food and Industrial Microbiology - Food and Beverage Spoilage and Contamination \*39002  
Disinfection, Disinfectants and Sterilization \*39500

BC Regular Nonsporing Gram-Positive Rods 07830  
Hominidae \*86215

IT Major Concepts  
Biochemistry and Molecular Biophysics; Cell Biology; Foods; Methods and Techniques; Pharmacology; Physiology; Public Health (Allied Medical Sciences); Toxicology; **Vector** Biology

IT Chemicals & Biochemicals  
NISIN

IT Miscellaneous Descriptors  
ADHERED CELLS; ANTIBIOTICS; **ANTIMICROBIAL PEPTIDES**;  
BIOFILMS; CELL VIABILITY; FOOD CONTACT SURFACES; FOOD CONTAMINATION;  
HUMAN PATHOGEN; METHODS

ORGN Super Taxa  
Bacteria - General Unspecified: Eubacteria, Bacteria; Hominidae: Primates, Mammalia, Vertebrata, Chordata, Animalia; Regular Nonsporing Gram-Positive Rods: Eubacteria, Bacteria

ORGN Organism Name  
bacteria (Bacteria - General Unspecified); microorganism (Microorganisms - Unspecified); regular nonsporing gram-positive rods (Regular Nonsporing Gram-Positive Rods); Hominidae (Hominidae); *Listeria monocytogenes* (Regular Nonsporing Gram-Positive Rods)

ORGN Organism Superterms  
animals; bacteria; chordates; eubacteria; humans; mammals; microorganisms; primates; vertebrates

RN 1414-45-5 (NISIN)

L6 ANSWER 4 OF 5 BIOSIS COPYRIGHT 2001 BIOSIS  
AN 1990:108832 BIOSIS  
DN BA89:58323  
TI MPR-A AN ESCHERICHIA-COLI GENE THAT REDUCES GROWTH-PHASE-DEPENDENT

b-catenin

- SYNTHESIS OF MICROCINS B17 AND C7 AND BLOCKS OSMOINDUCTION OF PRO-U WHEN CLONED ON A HIGH-COPY-NUMBER PLASMID.
- AU DEL CASTILLO I; GOMEZ J M; MORENO F  
CS UNIDAD DE GENETICA MOL., HOSP. RAMON Y CAJAL, CARRETERA DE COLMENAR KM 9,100, MADRID 28034, SPAIN.  
SO J BACTERIOL, (1989) 72 (1), 437-445.  
CODEN: JOBAAY. ISSN: 0021-9193.  
FS BA; OLD  
LA English  
AB Microcins B17 and C7 are plasmid-determined, **peptide antibiotics** produced by Escherichia coli when cells enter the stationary phase of growth. Microcinogenic strains are immune to the action of the microcin they synthesize. A well-characterized deficient-immunity phenotype is exhibited by microcin B17-producing cells in the absence of the immunity gene mcbG (M. C. Garrido, M. Herrero, R. Kolter, and F. Moreno, EMBO J. 7:1853-1862, 1988). A 14.6-kilobase-pair EcoRI chromosomal fragment was isolated by its ability to suppress this phenotype when cloned into a multicopy **vector**. This fragment was mapped to 57.5 min on the E. coli genetic map. The position of the gene responsible for suppression, designated mprA, was determined by insertional mutagenesis and deletion analysis. mprA was shown to be transcribed clockwise on the E. coli chromosome, and its product was identified as a 19-kilodalton polypeptide. Suppression was shown to be achieved by decreasing microcin B17 production. Increased mprA gene dosage also caused a decrease in microcin C7 production and blocked the osmoinduction of the proU locus in high-osmolality media. Our results suggest that the mprA gene product could play a regulatory role on expression of several E. coli genes, this control being exerted at the transcriptional level.
- CC Biochemical Studies - Nucleic Acids, Purines and Pyrimidines \*10062  
Biochemical Studies - Proteins, Peptides and Amino Acids 10064  
Replication, Transcription, Translation \*10300  
Biophysics - Molecular Properties and Macromolecules \*10506  
Biophysics - Membrane Phenomena 10508  
Metabolism - Proteins, Peptides and Amino Acids \*13012  
Metabolism - Nucleic Acids, Purines and Pyrimidines \*13014  
Physiology and Biochemistry of Bacteria \*31000  
Genetics of Bacteria and Viruses \*31500
- BC Enterobacteriaceae 04810  
IT Miscellaneous Descriptors  
MAP POSITION TRANSCRIPTION DIRECTION TRANSCRIPTION REGULATOR  
RN 73904-91-3D (MICROCINS)
- L6 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2001 ACS  
AN 1985:90590 CAPLUS  
DN 102:90590  
TI Plasmids and other vectors as tools in gene manipulation, with special emphasis on preparation of medically important substances  
AU Delappe, I. P.  
CS Mol. Microbiol. Parasitol. Branch, Natl. Inst. Allergy Infect. Dis., Bethesda, MD, USA  
SO Transferable Antibiot. Resist., Int. Symp. Antibiot. Resist. Plasmids, 5th (1984), Meeting Date 1983, 21-33. Editor(s): Mitsuhashi, Susumu; Krcmery, V. Publisher: Avicenum, Prague, Czech.  
CODEN: 53CNAX  
DT Conference; General Review  
LA English

b-catenin

CC 3-0 (Biochemical Genetics)  
Section cross-reference(s): 1

AB A review with 47 refs. on mol. cloning of genes for medically important substances, including insulin [9004-10-8], somatostatin [51110-01-1], somatotropin [9002-72-6], interferon, relaxin [9002-69-1], vitamins, lymphokines (immune regulatory), factor VIII [9001-27-8] (antihemophilic agent), tissue plasminogen activator [9001-91-6] and urokinase [9039-53-6] (both are thrombolytic agents), endorphin [60118-07-2] (a morphine-like **peptide**), **antibiotics** and vaccines.  
also Vectors for cloning such as plasmids, cosmids, and phage .lambda. are discussed.

ST review gene cloning **vector**; plasmid gene cloning review; cosmid gene cloning review; phage gene cloning review

IT Plasmid and Episome  
(as gene cloning **vector**, in pharmaceuticals prepn.)

IT Antibiotics  
Interferons  
Lymphokines and Cytokines  
Vitamins  
RL: BIOL (Biological study)  
(gene for, cloning of, vectors for)

IT Genetic engineering  
(in pharmaceutical prodn.)

IT Vaccines  
(mol. cloning in prodn. of, vectors for)

IT Molecular cloning  
(vectors for, in pharmaceutical prodn.)

IT Plasmid and Episome  
(cosmid, as gene cloning **vector**, in pharmaceuticals prepn.)

IT Virus, bacterial  
(lambda, as gene cloning **vector**, in pharmaceuticals prepn.)

IT 9001-91-6  
RL: BIOL (Biological study)  
(activator for, gene for, cloning of, vectors for)

IT 9001-27-8 9002-69-1 9002-72-6 9004-10-8, biological studies  
9039-53-6 51110-01-1 60118-07-2  
RL: BIOL (Biological study)  
(gene for, cloning of, vectors for)

=> log y

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	24.96	25.11
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-0.59	-0.59

STN INTERNATIONAL LOGOFF AT 10:35:33 ON 09 AUG 2001